

Abstract

A method and apparatus is provided to compensate for dispersion of a WDM optical signal. The method begins by directing a WDM optical signal having a prescribed bandwidth to a first dispersion compensating element and substantially compensating, with the first dispersion compensating element, each wavelength in the WDM optical signal for dispersion at a prescribed wavelength within a first sub-band of the prescribed bandwidth. The method continues by directing to a second dispersion compensating element wavelengths received from the first dispersion compensating element outside the first sub-band and substantially compensating, with the second dispersion compensating element, each wavelength received from the first dispersion compensating element for dispersion at a prescribed wavelength within a second sub-band of the prescribed bandwidth; The wavelengths received from the second dispersion compensating element are combined within the second sub-band of the prescribed bandwidth with the wavelengths received from the first dispersion compensating element within the first sub-band.